

PATENT CLAIMS

1. Non-basic refractory batch which contains

1.1 65 – 90 M-% non-basic refractory material with a
5 grain-size fraction of < 15 mm, and

1.2.1 10 – 35 M-% of a combination of at least one phosphatic
and at least one silicatic component, or

10 1.2.2 10 – 35 M-% of a combination of at least one C-containing
component and at least one silicatic component.

2. Batch according to Claim 1, with the proportion of the non-basic refractory material between
67 and 84 M-%.

15 3. Batch according to Claim 1, with the proportion of the non-basic refractory
Material between 70 and 80 M-%.

4. Batch according to Claim 1, whose phosphatic and/or silicatic component forms a molten
20 phase at temperature > 500° C.

5. Batch according to Claim 1 with the proportion of the silicatic component
between 2 and 23 M-%.

6. Batch according to Claim 1, with the proportion of the silicatic component ≥ 5 M-%.
7. Batch according to Claim 1, whose silicatic component is present in a grain-size fraction $< 0.3\text{mm}$.
8. Batch according to Claim 1, whose silicatic component includes at least one of the following components: calcium silicate, sodium silicate, aluminum silicate, boron silicate.
9. Batch according to Claim 1, in which the components are proportioned in relation to each other so that the batch forms at least 15 M-% of a molten phase at the application temperature.
10. Batch according to Claim 1, in which the components are proportioned in relation to each other such that the batch forms at least 20 M-% of a molten phase at the application temperature.
11. Batch according to Claim 1, whose non-basic refractory material includes at least one of the following components: sinter alumina, high-grade corundum, standard corundum, MA-spinel, bauxite, andalusite, mullite, zirconium corundum, zirconium mullite, kaolin, clay.

12. Batch according to Claim 1, whose phosphatic component is present in a proportion < 11 M-%.
13. Batch according to Claim 1, whose C-containing component consists at least partly of one of the following components: pitch, tar, resin.
14. Batch according to Claim 1, where the proportion of the C-containing component is < 13 M-%.
15. Batch according to Claim 1, with at least one of the following additional components:
- Al₂O₃ (< 5 M-%)
 - MgO (< 8 M-%)
 - Micro-silica (fine-grained silicic acid) (< 2 M-%)
 - Oil (in particular, mineral oil) (< 4 M-%).
16. Batch according to Claim 1, with at least one of the following components: reactive alumina, fine-grained MgO sinter.
17. Batch according to Claim 1, in which the total quantity of phosphatic and silicatic components, per criterion 1.2.1 is 20 – 28 M-%.

18. Batch according to Claim 1, in which the total quantity of C-containing and silicatic components, per criterion 1.2.2, is 12 – 18 M-%.
19. Use of the batch according to one of the Claims 1 to 18 for the hot repair of refractory linings in metallurgical melting vessels.